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Make Yourself Immune to Disease


Dr. David G. Williams

By the time you receive this issue the election madness will be well over (thank goodness) and the holiday season will be in full swing. And the new seasonal ritual, the push for flu shots, will also be in full swing.

Several places here in Texas were offering free flu vaccinations at the voting locations. It would have made just about as much sense to give away free lottery tickets—they'd give about the same amount of protection against the flu, without any of the dangerous side effects.

I've discussed the ineffectiveness of flu immunization before—and I still don't believe that it's the way to go, even with our current knowledge and technology. The immunization manufacturing process takes several months, so each spring researchers try to figure out which out of as many as a hundred strains of flu virus might rear its ugly head the following winter. Their three best guesses determine what's included in the next year's flu shot, and there's no guarantee they'll get it right. To make matters worse, even if they do get it right the various strains of these viruses are constantly mutating.

The whole situation is like trying to win at one of those carnival games. Sometimes you get really, really, close, but it's almost impossible to win. In the flu immunization game, the pharmaceutical companies are in even better shape than the owners of the carnival. As long as the public stays hoodwinked, they win. New laws make them immune from product liability lawsuits, even though adverse reactions have been shown to occur in as many as half of all users. The success of their product is based on fear, not effectiveness. It doesn't have to work...and it doesn't.

At a recent press conference, Dr. William Schaffner, the vice president of the National Foundation for Infectious Diseases, stated, "We're going to have more vaccine available this year than ever before...more than 100 million doses...and we hope this is not going to be an embarrassment of riches." He was apparently referring to the fact that less than half the public is even interested in getting a flu shot and less than a third of all health care workers—those who, after all, are working on the "front line"—get vaccinated. I don't know if the low rate stems from apathy or from awareness of studies showing that increased vaccination rates have no influence on flu-related death rates. Either way, the numbers obviously don't set well with the pharmaceutical companies. They'll need to step up their "fear of the flu" campaign.

Get Your All-Purpose Wonder Drug Here!

One of the slickest moves I've seen in a long time was the release of information suggesting that statins, the cholesterol-lowering medications, could decrease mortality due to pneumonia by anywhere from 40 to 60 percent and could be life-savers in episodes of influenza. Zocor, one of the most "successful" (in terms of sales, not efficacy obviously) had sales of $18 billion last year. Lipitor, another "successful" statin, had sales of $12.2 billion worldwide. Don't be surprised to see these drugs, or their spin-offs, being touted as another way to treat flu.

I know some of you will continue to take an annual flu shot and swear it helps. If that's your choice, I would at least take a few steps to help minimize its ill effects.

In This Issue

You will observe with concern how long a useful truth may be known, and exist, before it is generally received and practiced on. — Benjamin Franklin

The part of the immune system that gets less attention is called the "innate" branch, referring to what you already have at birth—including the natural killer (NK) cells that make up about half of your white blood cells.

(I hope I don't confuse the issue by saying that the adaptive branch uses what's known as "humoral" immunity, and the innate branch uses "cell-mediated" immunity. That's a discussion for another time.)

I've talked quite a bit about NK cells in past newsletters. They are your first line of defense against any form of invasion to the body. NK cells are border guards. It's their job to detect and destroy all types of pathogens as soon as they enter. It doesn't matter if these pathogens are viruses, bacteria, fungi, or even your own cells that have turned cancerous. Unlike other parts of your immune system, NK cells don't require prior exposure to a virus or antigen before they can target and kill infected cells.

Each NK cell contains several small granules, which I guess you could equate to natural "grenades." Once the NK cell recognizes a cell as foreign and a threat to your health, it quickly attaches to that cell's outer membrane and injects these grenades into the interior of the cell. The grenades subsequently "explode," destroying the pathogenic or cancerous cell. Fortunately, the NK cells are undamaged during the process and can move to the next pathogen or cancer cell and repeat the process.

If the NK cells are able to "clear" the pathogen or cancer cells quickly enough, you can recover rapidly and avoid a more serious illness—or even death.

With other types of white blood cells, trouble comes when their numbers drop too low. That seldom happens with NK cells, though. Instead, the problem occurs when they become less active (run out of grenades). An increasing amount of research seems to point to the fact that NK activity is a strong determinant as to whether a person remains healthy or becomes sick. It plays such a critical role that NK activity can be the primary criterion for estimating the chances of survival in cancer and AIDS patients.

The Root of the Problem

If, for some reason, the invasion of a pathogen is more than your NK cells can handle, the adaptive branch of your immune system is called into action. Under normal circumstances this backup plan should not be a problem. With the 1918 flu virus, however, it proved deadly.

When researchers reconstructed the 1918 flu virus and tested it in animals, they discovered that it triggered an unusually massive response from genes that are responsible for launching an immune attack—producing inflammation and triggering cell suicide. Unlike most of the flu viruses we've seen recently, the 1918 flu virus excited an immune system reaction in the victim that actually destroyed their lungs and in many cases resulted in rapid death. Lung tissue was flooded with immune cells such as neutrophils and macrophages, resulting in widespread inflammation and cell death and destruction. (For the more technically minded among my readers, this process is what's been called a "cytokine storm"—where the signalling mechanism goes haywire and the immune system loses its ability to regulate itself.)

We often see a very similar response in cases where the bird flu (strain H5N1) has infected humans. Flu symptoms appear, followed by physical deterioration, organ failure, and death.

What made the Spanish flu even more unusual was that, unlike today's contemporary influenza strains that are more deadly in the elderly and very young, the 1918 strain often struck those between the ages of 20 and 40. This is probably because their immune systems typically produce an even more exaggerated response than those of younger or older people.

Trying to "tone down" the response of your immune system to an attack would be difficult—if not impossible. Sure, we have the ability to totally suppress the immune system with drugs like corticosteroids, but doing so while an infection is present can prove deadly. The reasonable solution would seem to be to increase the effectiveness of the NK cells. The quicker we stop the invasion, the less need we have to rely on backup from our adaptive immune system.

Power Up Your Immune System

Several years ago, I wrote about a hybridized mushroom extract (active hexose correlated compound, or AHCC) called ImmPower. My interest in ImmPower was spurred by the significant amount of research illustrating it could be a very effective tool in the treatment of cancer through its ability to increase the activity of NK cells. I wrote that article before the emergence of potential threats like SARS, bird flu, or this recently released research on the 1918 influenza virus. With these new findings, it becomes apparent that ImmPower may turn out to be one of our best defenses against the next flu pandemic, adapted viruses in bioterrorism, or other powerful pathogens that are in the making.

Acting on this latest information about the 1918 flu virus, researchers at Drexel University recently tested ImmPower's effects on a flu virus called Puerto Rico 8 (H1N1, PR8) in laboratory animals. Two groups of mice

(*Immune Support continued on page 142*)

Shell ginger (*Alpinia zerumbet*) is part of the ginger family of plants whose leaves have not only a desirable aroma, but also exhibit germicidal and antifungal properties. It makes the ideal food wrap for rice cakes (mochi). This is another instance where the level of resveratrol in a particular food may not be that high, but its consumption on a regular and frequent basis makes a significant difference in an individual's overall health and longevity.

You're going to be hearing a lot more about resveratrol in the future. From what I've seen and reported so far, I'm honestly a little confused as to why its use hasn't become more widespread already. I've been taking it consistently for a couple of years now (and am also diligently trying to include a little more red wine in my diet). I'm currently working to have it included as one of the components in my multinutrient in the very near future.

At the time I first wrote about resveratrol a couple years ago, it wasn't readily available in supplement form. Since that time several high-quality supplements have become available from several sources. I recommend that you take 10 to 20 mg a day.

Kick Off Your Shoes and Live a Little

CHICAGO, ILLINOIS—Walking barefoot may provide benefits beyond just a feeling of relaxation, according to a recent study conducted at Rush Medical College in Chicago. Researchers there measured movement and pressure at the knee and hip in 75 men and women who had already been diagnosed with arthritis in their knees. Walking barefoot reduced the load on the knees by nearly 12 percent compared to walking in ordinary street shoes. (*Arthritis Rheum 06;54(9):2923–2927*)

Your knee is one of the most complex joints in your body. The lower part of your thighbone (femur) ends in two rounded sections. Each of these sections fits into a flattened space at the top of your shinbone (tibia). Between your femur and your tibia is a pair of cushioning disks called *menisci*. Everything is held in place by ligaments and muscles that should prevent excessive movement in any one direction. Finally, your kneecap (patella) protects the joint and provides additional stability.

In addition to the normal back-and-forth motion, the knee also has to handle some side-to-side movement. During normal walking, your knees tend to flex a bit toward the outside. This movement puts most of the load on the inside of the knee, called the medial side. Not surprisingly, this is the site most commonly affected by knee arthritis.

Various attempts have been made over the years to correct the problem in people who have arthritis in a knee. The most radical solution, obviously, is to replace the entire structure with a metal-and-plastic joint. Another possibility is to shave down the end of the shinbone on the medial side, which shifts some of the pressure onto the outside of the joint.

A less extreme solution is the use of orthopedic wedge inserts. An insert that lifts the outside edge of the foot by as little as four degrees has been shown to reduce the lateral pressure on arthritic knees, and consequently reduce the pain of walking, climbing stairs, et cetera. (*Arch Phys Med Rehabil 02;83(7):889–893*) (*J Rehab Res Dev 06;43(4):427–434*)

Treat Your Feet Carefully

The researchers in the Chicago study had the idea that perhaps the simple act of wearing street shoes could cause knee problems. The dangers of high-heeled shoes were already well-known. Women who habitually wear heels are at higher risk of wrenched ankles and lower back pain, and earlier studies showed heels as low as 1-1/2 inches could cause increased knee pressure as well. (The researchers in the *Lancet* study thought that high heels might be part of the reason that women are twice as likely as men to have arthritis in the knee.) (*Lancet 98;351:1399–1401*) (*Arch Phys Med Rehabil 05;86(5):871–875*)

Our distant ancestors went barefoot all the time, of course. I wouldn't recommend walking barefoot on city sidewalks, but for around the house and yard it should be fine. My family and I try to remember to take our shoes off as soon as we get inside the house to avoid tracking in dirt, pesticides, and other toxins picked up on the soles of our shoes. I've written before about how dangerous these can be, particularly if you have a youngster or two crawling over the floor.

Walking barefoot outside has other benefits as well. It helps keep you "grounded" by maintaining contact with the earth's electrical field. You'll also notice that it's natural for your toes to contract with each step when you don't have shoes. This action not only works the calf muscles, but also increases circulation and lymphatic flow, which can be a major benefit—particularly as we get older. This "gripping" action of the toes is really noticeable when you walk in sand.

One caution: People who have neuropathy in their feet should use extra care when walking barefoot. There are numerous cases of people who have stepped on an object such as a tack and not been aware of the injury because they had no sensation in their feet. Diabetes is a leading cause of neuropathy; just one more reason to watch your blood sugar levels and get adequate amounts of exercise—like walking on the beach.

Aspirin Revisited

Question: In the September issue you once again trashed the regular use of aspirin. This time you cited studies that somewhere between 5% and 60% of those taking aspirin are actually "aspirin resistant" and not only do they not benefit from aspirin's anti-clotting effects but it also increases their risk of problems like stroke and heart attack by threefold.

I've read your past articles on how aspirin increases bleeding in the stomach, increases the risk of macular degeneration, etc., etc. My doctor hasn't heard about "aspirin resistance" and feels the benefits of aspirin outweigh the risk of developing these other problems. I don't know what to believe.

— Robert K.
San Antonio, Texas

Answer: I know it gets confusing. Obviously, it's a decision you'll have to make on your own. Just base the decision on facts and not propaganda and advertising. There are risks, serious risks, involved with long-term aspirin use, as I've mentioned. And there are legitimate safe alternatives, such as bromelain and nattokinase—which I've covered extensively in the past.

As far as aspirin resistance, it is real but not very well publicized. Unfortunately, it seems like those with the greatest risk of experiencing cardiovascular problems just happen to be the group with the highest resistance problems. I'm sure your doctor will be hearing more about it in the near future. I only hope he/she will start testing patients and informing them of the dangers rather than just recommending routine aspirin use for everyone with cardiovascular problems.

One of the latest studies reported that the failure of aspirin to suppress blood clotting was directly responsible for up to 20% of serious heart attacks and strokes. That's a pretty high failure rate in my book, and other studies have found the failure rate to be even higher.

Aspirin resistance was found in 26% of high-risk cardiovascular patients under the age of 60 and 45% of the patients over the age of 60. It's obviously an unrecognized problem that needs to be addressed.

Dr. Zoltan Ungvari, with the New York Medical College, recently took blood samples from 50 high-risk cardiovascular patients and tested the blood-clotting activity. He found that resveratrol was very effective at inhibiting blood clotting, particularly in aspirin-resistant individuals. We'll have to wait on more studies for dosage and other details, but it looks like resveratrol now has another use. (*J Cardiovasc Pharmacol 06;48(2):1-5*).

to do so even after you cut back to 1 gram daily. However, if you wait until you see the first signs of a flu or other infection I would suggest starting at a higher dosage like 5 to 10 grams daily for a week, and then tapering down to 1 or 2 grams. You can bet that if we get any prior warning of either a spreading flu pandemic or biological terror threat my family and I will start using a higher dosage of the product immediately. That's one reason I keep several bottles on hand at all times. (You can use AHCC for all of your family members, young and old. I'd start with half the adult dose in children under age 12, however.)

ImmPower can be purchased from the Harmony Co. Their address is PO Box 93, Northvale, New Jersey 07447 and they can be reached at 888-809-1241. More information is available at their Web site, *www.TheHarmonyCo.com*. Mention that you're a reader of *Alternatives* and they'll give you a 10 percent discount on your first order.

During every severe influenza epidemic, there will be those who remain well while others are dropping like flies around them. I'm sure the same thing is happening with the bird flu. Many cases of bird flu aren't being reported because they don't result in severe symptoms. Not everyone died of the 1918 flu pandemic. This contrast obviously stems from varying degrees of NK cell activity. The higher your NK cell activity, the greater your odds of survival. That's true in the case of cancer, as well as in viral and bacterial infections. [*Editor's note: See Vol. 10, No. 15 on the use of AHCC for treatment of cancer.*]

How to Know When You Need Help

Most doctors don't ever check for NK cell activity for any condition—not even in severe infections or life-threatening conditions such as cancer. Rather than "customizing" a treatment program by insuring that each therapy actually boosts the body's own natural defenses, physicians tend to focus on therapies or chemicals that destroy the pathogens or cancer cells directly. As such, you probably are never given any idea as to the level of activity of your NK cells.

There may be subtle indications that your NK cell activity is low, however, and that the cells could use some help before you're confronted with more serious problems. Chronic allergies, recurring infections, and longer-than-normal healing times for wounds, trauma, ulcerations, or other tissue damage are all indicators of reduced activity.